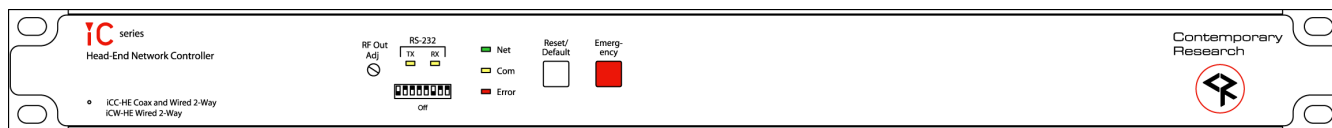


# ICC/ICW-HE

## Head End Network Controllers 2-Way RF and Wired Networking



Contemporary Research offers two solutions for intelligent television control and distributed media management, the ICC-HE and ICW-HE Head-End Network Controllers. Both units are capable of networking up to 4,000 iC-Net TV Controllers, Display Controllers and Tuners into a unified, interactive system. Compatible with **ABC Media Retrieval System** and **iC Commander** software, as well as custom control systems, the Head-End Network controllers send and receive all commands from a single RS-232 control port.

The ICW-HE provides 2-way iCW-Net networking, distributing iC-Net commands and responses over Category 5 or Category 3 wiring. Three iCW-Net ports are included, each capable of connecting thousands of ICW-Net format controllers over wiring runs of up to 3,300 feet (1 Km). In addition, iCW-Net data can be sent to remote locations over fiber and videoconferencing codecs.

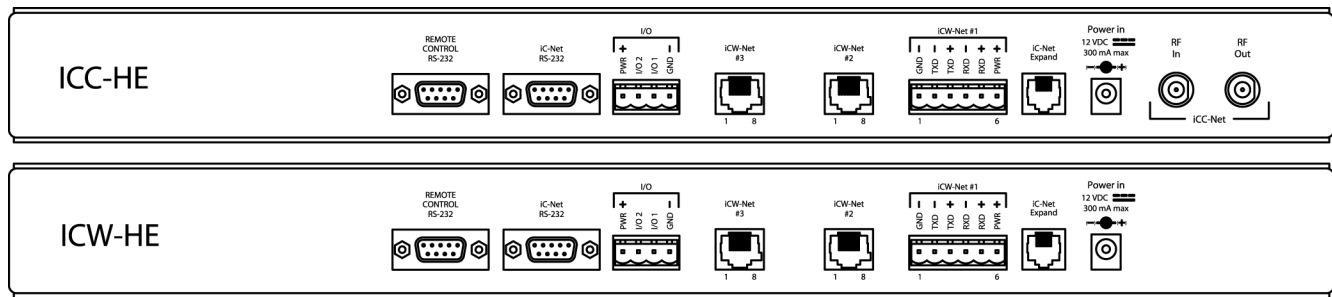
The ICC-HE features the same iCW-Net capabilities as well as distributing iCC-Net data over the CATV cable. Employing clear-channel RF frequencies to transmit and receive data, the iCC-Net network is compatible with any CATV system without conflict with existing channels. The bi-directional network operates over a standard low-split cable system, simplifying installation and support.

Applications include educational television systems, presentation rooms, auditoriums, pay-per-view, theme parks, museums and industrial video networks.

### Features

- ▽ Networks up to 4,000 TVs through wired iCW-Net and broadband CATV iCC-Net protocol
  - iCC-Net operates through same CATV coax as TV channels, requires no additional wiring
    - Clear-channel send and receive frequencies compatible with all CATV distribution systems
    - Operates over a standard low-split cable system, simplifying installation and support.
  - iCW-Net distributes data over standard Category 5 or 3 wiring
    - Compatible with fiber optic cable, or codec network data distribution
- ▽ Sends commands to individual devices, zones, or all units from a single RS-232 port
- ▽ Interacts with ABC Media Retrieval Systems, iC Commander software, or custom control systems
- ▽ Includes local control buttons and I/O ports that can trigger events in PC software or control systems
- ▽ Provides LED feedback for network, control, and operation status
- ▽ Restores operation status after loss of power from data stored in non-volatile memory
- ▽ Mounts on shelf or 19" equipment rack

# ICC/iCW-HE Specifications



## Physical

Size: 19" [483mm] wide x 1.75" [38mm] height (1RU) x 9" [229mm] deep  
 Weight: 3 lbs [1.36kg]  
 Enclosure: All aluminum with durable black powder coat paint  
 Mounting: Shelf or 19" equipment rack (mounting brackets included)

## Front Panel

RF Out Adjust: Trims iCC-Net channel output, shipped set to +55 dBmV  
 RS-232 TX LED: Yellow LED, lights when receiving RS-232 data on Control or iC-Net RS-232 port  
 RS-232 TX LED: Yellow LED, lights when receiving RS-232 data on Control or iC-Net RS-232 port  
 RS-232 DIP Switch: Sets RS-232 baud rate (9600 - 38.4K), 8 data bits, no parity, 1 stop bit  
 Selects high/low sensitivity for RF In signal  
 Net LED: Green LED for iC-Net bus, flashes once per second if network is operating, device numbers agree  
 LED will flash twice per second if the number of present and expected devices do not match  
 COM LED: Yellow LED blinks when a valid command is received or system response sent through the Control port  
 Error LED: Red LED indicates a problem within the unit  
 Reset/Default: White button sends press and release response to PC software or control system  
 Emergency: Red button sends press and release response to PC software or control system

## Rear Panel

Control RS-232: DB9 female, RS-232 data link to control system or PC  
 iC-Net RS-232: DB9 female, RS-232 data link to send iCW-Net over fiber or codec  
 I/O 1 & 2: 4-pin captive screw terminal for Input/Outputs 1 and 2  
 2 switch closures or inputs, max 50 mA, 24 VDC, switch to GND  
 I/O Applications: DC power - close pins 1 & 3 to provide DC on/off  
 Dry closure 2 - close pins 3 & 4 for dry contact to external power relay, AMX PC1 or similar  
 Sense closure (3 & 4) on Input 1 - trigger control system to power off for all rooms

## iCW-Net Connections (ICC-HE and iCW-HE)

iCW-Net 2, 3: RJ-45 female 8 pin Telco jack, supports 3300 ft [1 km] of wire  
 RS-422 type data requiring at least 2 twisted wire pairs with shield or fifth conductor  
 iCW-Net 1: 6-pin captive-screw terminal for system wiring or use with RS-422-format fiber or codecs  
 iC-Net Expand: RJ-11 female 6-pin Telco jack  
 CAT3/CAT5 compatible unshielded, max 3,300 feet [1 Km] from Head End  
 Power In: 2.1mm coaxial jack (inside center conductor positive), 300 mA maximum  
 11 to 18 VDC, 12 VDC typical (may be unregulated)

## iCC-Net Connections (ICC-HE Only)

RF In: 'F', female, 75 ohm impedance, RF and iCC-Net from CATV system  
 Data Receive: Carried over the same RF coax connection as TV channels  
 Return signal from system controllers  
 Sub-band, 5.6MHz, narrow-band signal below standard sub-band channels  
 -15 to +35 dBmV signal level (0 to +15 dBmV nominal)  
 RF Out: 'F', female, 75 ohm impedance, RF to CATV distribution to TVs, tuners, and controllers  
 Data Transmit: Mid-band VHF, 74.7 MHz, narrow-band signal between channels 4 and 5  
 ± 80 KHz max carrier deviation  
 +55 dBmV maximum (default)

## Includes

19" Mounting hardware  
 10 dB RF attenuator (ICC-HE only)  
 12 VDC Power Supply (North American shipments only)